

Buckinghamshire County Council.

ANNUAL REPORT

ON THE

PUBLIC HEALTH

OF

BUCKINGHAMSHIRE,

FOR THE YEAR 1915,

**Including the Reports of the Tuberculosis
Officer and of the Inspector of Midwives,**

COMPILED BY THE

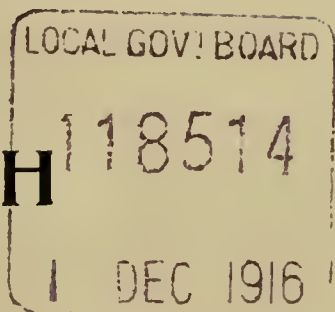
COUNTY MEDICAL OFFICER,

And printed by direction of the County Council.

AYLESBURY :

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—
1916.



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MEMBERS OF PUBLIC HEALTH AND HOUSING COMMITTEE, 1915.

Mr. LEONARD H. WEST, LL.D. (Chairman).

LORD ADDINGTON (died 14th June, 1915).

Mr. FREDERICK WILLIAM DENCHFIELD.

Major CONINGSBY RALPH DISRAELI.

Mr. HERBERT DODWELL.

Mr. ROBERT VICTOR ELVEY (Vice-Chairman).

Mr. JOHN GOMM.

Mr. JAMES HERBERT.

Mr. JAMES HOLLAND.

Mr. JOHN MATTHEW KNAPP.

Mr. WILLIAM ELLIOTT NASH.

Mr. WILLIAM PURSLOW.

Mr. HORACE ROSE (Vice-Chairman).

SIR JOHN THOMAS.

Mr. J. S. TIBBETTS (died 23rd September, 1915).

Lieut.-Colonel FRANCIS OWEN WETHERED.

Mr. T. C. J. WILLIAMS.

THE CHAIRMAN OF THE EDUCATION COMMITTEE
(*ex-officio*).

THE CHAIRMAN OF THE COUNTY COUNCIL
(*ex-officio*).

List of Sanitary Authorities and Medical Officers of Health for 1915.

LOCAL GOV. BOARD

118514

1 DEC 1916

URBAN DISTRICTS.

AYLESBURY	T. G. Parrott, M.D.
BEACONSFIELD	Arthur H. Turner, M.R.C.S.
BLETCHLEY	Edgar Nicholson, M.R.C.S.
BUCKINGHAM, BOROUGH OF..	T. Eben Pemberton, M.B.
CHESHAM	Thomas F. Long, M.R.C.S.
ETON	Gerard Walker, B.C.
LINSLADE	C. M. L. Cowper, M.R.C.S.
MARLOW	J. Dunbar Dickson, M.D.
NEWPORT PAGNELL	Gerard Walker, M.B., B.C.
SLOUGH	E. W. Adams, F.R.C.S., D.P.H.
WYCOMBE, BOROUGH OF	G. D. K. Bannerman, M.R.C.S., D.P.H.

RURAL DISTRICTS.

AMERSHAM	J. Sherwood New, M.B., B.S., D.P.H.
AYLESBURY	A. Thomson Morrison, M.B., B.Ch.
BUCKINGHAM	Philip L. Benson, M.D., D.P.H.
ETON	Gerard Walker, M.B., B.C.
HAMBLEDEN	J. Dunbar Dickson, M.D.
LONG CRENDON	G. D. K. Bannerman, M.R.C.S., D.P.H.
NEWPORT PAGNELL	Digby White, M.D.
STRATFORD & WOLVERTON...	D. W. A. Bull, M.B., B.C.
WING	P. Stedman, M.B., D.P.H.
WINSLOW	T. F. Vaisey, M.R.C.S.
WYCOMBE	J. Dunbar Dickson, M.D.

The annual reports of the several Medical Officers of Health were received on the following dates:—

Aylesbury U.	February	7
Winslow R.	"	26
Linslade U.	"	28
Long Crendon R.	March	23
Marlow U.	March	16
Bletchley U.	"	17
Buckingham Borough	"	27
Stratford and Wolverton R.	"	27
Buckingham R.	April	3
Wycombe R.	"	20
Wycombe Borough	"	26
Wing R.	May	8
Aylesbury R.	"	13
Hambleden R.	"	22
Slough U.	"	23
Chesham U.	"	24
Newport Pagnell U.	June	1
Beaconsfield U.	"	15
Newport Pagnell R.	"	20
Amersham R.	July	11
Eton U.	}	Reports not received.
Eton R.		
Registrar-General's Annual Report, 1914...	April 27, 1916	

On grounds of economy the reports of the following districts were type-written instead of being printed:—Bletchley Urban, Aylesbury, Hambleden, and Long Crendon Rural.

**To the Chairman and Members of the Buckinghamshire
County Council.**

The work of the County Public Health Department was carried on throughout the year 1915 on the lines indicated in the County Medical Officer's Annual Report for 1914. Thanks largely to the efforts of Mr. Broughton, the Chief Clerk, also Clerk to the Insurance Committee, who has been guided on technical points by Dr. Scruby, the Deputy School Medical Officer, and by Dr. Burra, the Tuberculosis Officer, the routine procedure of the office has been carried on. Moreover, the County Medical Officer, although on active service in France, was enabled to keep in touch with the work, and to outline or revise reports to the Public Health and Housing Committee.

The scheme for Maternity and Child Welfare, which was referred to in last year's report, was initiated during the year under the direction of Dr. Scruby. The scheme necessitated the appointment on 5th July of Miss Edwards (who was succeeded on 11th November by Miss Atkinson) as whole-time assistant to Miss Mackenzie, the Inspector of Midwives and County Superintendent of Nurses. Miss Atkinson undertakes health visiting in a large area where there are no approved District Nurses. A detailed Report is printed on page 52.

The technical work of this Department in connection with the Mental Deficiency Act, 1913 (except so far as children of school age are concerned), has been largely in abeyance during the year owing to the County Medical Officer's absence. The negotiations, however, for the reception of 40 Mental Defectives at the Winslow Union Institution have been brought to a successful conclusion during the current year. The necessary investigations prior to admission to an institution and the finding of a suitable institution have been largely taken over by the Local Voluntary Association.

On November 1st Dr. Burra, County Tuberculosis Officer, was granted one year's leave of absence on his appointment to a temporary commission in the Royal Army Medical Corps. Dr. H. B. Gibbins, Tuberculosis Officer to the Corporation of the City of London, was appointed from that date to act as part-time Tuberculosis Officer to the County, and has carried

on the essential parts of the work most efficiently. The County Council and County Insurance Committee are indeed fortunate to have discovered such a happy solution to the difficult position created by Dr. Burra's natural desire to undertake military service.

It is with great regret that the County Medical Officer places on record the death of Lord Addington on June 14th, and of Mr. Tibbetts on Sept. 23rd, both regular attendants and keen members of the Public Health and Housing Committee. The vacancies created have been filled during the current year by the appointment of Colonel P. B. Giles, C.B., and of Mr. Thomas Osborne.

The County Medical Officer's remarks in a postscript on page 7 of last year's annual report have in no way stimulated the Eton Urban and Rural District Councils to a sense of their duty in the matter of the statutory annual reports of their Medical Officer of Health, Dr. Walker. No reports as to the Public Health of either of the districts during the year 1914 have yet been received by the County Medical Officer; and for the year 1915 only the vital statistics are to hand. Even at the time of writing this introductory letter, August, 1916, the Statutory reports for 1915 have not yet been received from either District. It is suggested that these facts be communicated to the Local Government Board.

In accordance with the wish of the Public Health and Housing Committee, this annual report has been considerably curtailed. However, for the sake of future reference and for comparative purposes, it is necessary to publish in full the usual tables and statistical details.

In conclusion, the County Medical Officer wishes to thank all his colleagues mentioned above, and more especially Dr. West, Chairman of the Public Health and Housing Committee, and Mr. Broughton, the Chief Clerk to the Department.

A. H. HOGARTH,

County Medical Officer.

COUNTY HEALTH OFFICE,

AYLESBURY,

August, 1916.

POPULATION AND ACREAGE.

	Acreage.	POPULATION.		
		Census, 1891.	Census, 1901.	Census, 1911.
Urban Districts ...	26,661	58,612	69,157	79,955
Rural Districts	452,697	128,068	127,889	139,596
Administrative County	497,358	186,680	197,046	219,551
<i>England & Wales...</i>	37,326,795	29,002,525	32,527,843	36,075,269

The details for individual urban and rural districts may be seen in the table at the end of the report. The estimated population on which the vital statistics for the County are calculated this year is 214,727, being 77,271 for urban districts and 137,456 for rural districts. This estimate was prepared by the Registrar-General, and is based on information obtained from the National Register.

In a memorandum dated 26th February, 1916, on Estimates of the Civil Population, the Registrar-General makes practical suggestions for minimising the discrepancies that have arisen in consequence of the migration of the male population owing to the obligations of military service. Thus the birth rate should be calculated on the existing estimates of the total population for 1914, whereas the death rates and infectious disease attack rates are calculated on the Registrar-General's estimates for 1915, as given on this page.

Vital statistics are of little value if not considered with reference to a period of ten years, and in this report the average birth and death rates, infantile mortality, and phthisis death rates are so compared in the large table at the end.

NOTE.—The chief statistics for the separate Urban and Rural Districts are grouped together in the table at the end of the report.

COUNTY BIRTH RATE.

	1913.		1914.		1915.	
	Number of Births.	Rate per 1,000.	Number of Births.	Rate per 1,000.	Number of Births.	Rate per 1,000.
Urban Districts	1,707	20·5	1,762	20·9	1,573	18·7
Rural Districts	2,758	19·3	2,720	18·9	2,584	18·0
Administrative County	4,465	19·7	4,482	19·5	4,157	18·1
<i>England and Wales</i> ...	881,890	23·9	879,096	23·8	815,527	21·8
<i>Rural England</i> †	174,492	22·0	170,747	21·6	...	20·7

The Registrar General writes:—

“The births registered are not only those of civilians, and the estimates of the civil population therefore form an unsuitable basis for the calculation of birth rates. It is impossible to frame an estimate that would give reliable birth rates, and it is suggested therefore that the birth rates for 1915 be based upon the existing estimates for 1914.”

This suggestion has been acted upon.

The birth rates of the individual districts may be seen in the table at the end of the report. Of the urban districts the highest rates are reported from Marlow (20·9), Slough (20·0), Wycombe (19·8), Chesham (19·3); and the lowest from Newport Pagnell (16·2), excluding Eton (9·0), which is scarcely comparable as no less than one-third of its population is constituted by Eton College. In the rural districts the highest rates are reported from Amersham (19·8), Wycombe (19·7), and Eton (19·1); and the lowest from Wing (13·9) and Long Crendon (14·6).

The table shows that the County birth rate is much below that not only of England and Wales, but also of Rural England (that is to say, England and Wales without the 244 towns of over 20,000 inhabitants).† The County birth rate is 1·4 per 1,000 lower than last year. Except for the year 1913 the rate has been steadily declining for the past ten years.

It is worthy of note that of all Counties in England and Wales, Buckinghamshire has one of the lowest marriage rates.

NOTE.—All rates given in this report are calculated per 1,000 of the estimated population.

† It should be noted throughout this report that the conditions in Buckinghamshire are exactly comparable with those of Rural England, as there is not one town with a population of 20,000 in the County.

COUNTY DEATH RATE.**Corrected for age and sex constitution of the population.†**

	1913.		1914.		1915.*	
	Number of Deaths.	Rate per 1,000.	Number of Deaths.	Rate per 1,000.	Number of Deaths.	Rate per 1,000.
Urban Districts	909	10·0	962	10·8	1,158	15·0
Rural Districts	1,564	9·5	1,734	10·7	1,926	14·1
Administrative County	2,473	9·8	2,696	10·4	3,084	14·3
<i>England & Wales</i>	504,975	13·3	516,742	14·0	562,326	15·1
<i>Rural England</i>	98,898	10·7	99,740	10·8	...	14·8

The death rates referred to in this table include all residents in Buckinghamshire, whether registered within or without the County. Deaths of non-residents occurring in public institutions in the County are not included. The death rate thus calculated is known as the crude death rate. This year no correction for the age and sex constitution of the area has been possible, owing to the disturbance of the normal distribution of population by enlistments in the Navy and Army, by the transfer of munition workers, and by other causes consequent upon the war.

It will be noticed that there were 388 more deaths than in 1914, and that the death rate was increased from 10·4 (corrected, or 11·8 crude) to 14·3 (crude).

The causes of death which show an increase are (in the order given) Bronchitis, Pneumonia, Heart Diseases, and Influenza.

It must be remembered that after a series of years with low death rates, especially when accompanied by low birth rates, a period with a high rate of mortality is to be expected owing to the increase in the proportion of aged persons to the total population. It is probable that worry and anxiety caused by

† This correction is obtained by multiplying the crude death rate by a particular factor for correction (.8942) supplied by the Registrar-General, which is obtained by dividing the standard death rate in England and Wales by the standard death rate in the area.

* No correction for age and sex distribution being possible, the death rates for 1915 are "crude" death rates,



County Death Rate.

the war have hastened the deaths of a number of these aged people.

The death rate has also been increased by two factors. In the first place, the population has been considerably reduced by the enlistment of young and healthy males, and in the second place this fact has rendered it impossible to correct the death rate according to the age and sex constitution of the population.

If it is fair to judge the comparative healthiness of counties in England and Wales from the annual death rates, there is little room for doubt as to the claim of Buckinghamshire to priority among all the counties when consideration is given both to crude and to corrected death rates. Comparative statistics are available only for registration—and not for administrative counties. The difference is immaterial. The following table, which is prepared from the Registrar General's Report (1909-15), gives the comparative order for the last seven years:—

Twelve Registration Counties in England and Wales with lowest CRUDE Death Rates.

1909.	1910.	1911.	1912.	1913.	1914.	1915.
Radnor	Middlx.	Middlx.	Middlx.	Middlx.	Middlx.	Middlx.
Middlx.	Essex	Herts	Rutland	Hunts	Surrey	Rutland
Essex	Bucks	Bucks	Surrey	Bucks	Essex	Essex
Kent	Surrey	Surrey	Essex	Essex	Bucks	Derby
Northants	Herts	Essex	Herts	Surrey	Dorset	Surrey
Bucks	Rutland	Berks	Dorset	Hants	Berks	Bucks
Westmoreland	Berks	Rutland	Bucks	Oxon	Rutland	Berks
Surrey	Beds	Northants	Wilts	Dorset	Herts	Westmoreland
Wilts	Wilts	Wilts	Kent	Herts	Sussex	Oxon
Dorset	Kent	Radnor	Berks	Kent	Hants	Herts
Leicester	Northants	Sussex	Sussex	Berks	Somerset	Leicester
Berks	Hants	Dorset	Derby	Northants	Kent	Notts

It will be seen that Bucks, Essex, Middlesex, and Surrey are the only counties which consistently appear near the top of this list of 12 registration counties in England and Wales having the lowest *crude* death rates.

In Buckinghamshire, therefore, the total number of deaths is comparatively small, and if appropriate correction were to be made for the abnormal age and sex constitution of the area, the comparative lowness of the death rate would be still further emphasised. For the reasons stated, however, no such correction has been possible this year, and the table showing the 12 Registration Counties with the lowest *corrected* death rates (in which Bucks always appears consistently near the top of the list) is omitted for the first time since 1908.

CAUSES OF DEATH.

The principal causes of death in the urban and rural districts can be seen at a glance in the following table, which is reproduced in the form suggested by the Local Government Board.

CAUSES OF DEATHS AT ALL AGES.

Causes of Death.	1914.		1915.	
	URBAN.	RURAL.	URBAN.	RURAL.
1. Enteric Fever	1	1	...	6
2. Small-pox .....	...	...	...	...
3. Measles	7	5	22	16
4. Scarlet Fever .....	...	4	3	6
5. Whooping Cough	5	5	22	22
6. Diphtheria and Croup	5	4	11	13
7. Influenza	13	26	25	70
8. Erysipelas	1	4	...	1
9. Phthisis (Pulmonary Tuberculosis)	72	81	76	88
10. Tuberculous Meningitis	10	6	13	14
11. Other Tuberculous Diseases	10	15	6	15
12. Cancer, malignant disease	95	169	72	154
13. Rheumatic Fever	2	3	8	6
14. Meningitis	3	13	14	17
15. Organic Heart Disease	90	177	105	258
16. Bronchitis	61	104	147	192
17. Pneumonia (all forms)	48	70	109	137
18. Other diseases of the respiratory organs	13	9	13	15
19. Diarrhoea and Enteritis	22	14	21	14
20. Appendicitis and Typhlitis	3	10	7	12
21. Cirrhosis of Liver	8	9	7	15
21A. Alcoholism	2	6	3	1
22. Nephritis and Bright's Disease	46	65	33	65
23. Puerperal Fever	2	2	1	3
24. Other Accidents and Diseases of Pregnancy and Parturition	1	6	4	7
25. Congenital Malformation and Debility, including Premature Birth	58	63	52	76
26. Violent Deaths, excluding Suicide	23	43	28	42
27. Suicide	18	14	6	14
28. Other defined Diseases	274	444	289	522
29. Diseases ill-defined or unknown	27	98	61	125
Totals	962	1,734	1,158	1,926

The figures relating to the year 1914 are incomplete, owing to the fact that the annual reports of the Medical Officer of Health for the Eton Urban and Rural Districts were not received. The totals, however, are correct.

DEATHS UNDER ONE YEAR OF AGE.

The ratio of the annual number of deaths under one year of age to a thousand births registered during the same period represents the rate of infantile mortality.

INFANTILE MORTALITY RATE.

	1913.			1914.			1915.		
	Births.	Deaths under 1 Year	Rate.	Births.	Deaths under 1 Year	Rate.	Births.	Deaths under 1 Year	Rate.
Urban Districts	1,707	133	78	1,762	116	65	1,573	157	100
Rural Districts	2,758	181	66	2,720	158	54	2,584	208	80
County	4,465	314	70	4,482	274	61	4,157	365	85
England & Wales	881,890	95,608	109	879,096	91,971	105	814,527	89,477	110
Rural England...	174,492	15,383	88	170,747	14,575	85	...	...	98

In urban districts the lowest rates are reported from Beaconsfield (nil) and Chesham (54); and the highest from Buckingham (131), Wycombe (123), Marlow and Slough (121).

In rural districts the lowest rates are reported from Aylesbury (65) and Buckingham (65); and the highest from Wycombe (163) and Long Crendon (123).

The infantile mortality rate in Buckinghamshire (85) compares favourably with that of England and Wales (110), and of Rural England (98). Sixteen out of 55 counties in England and Wales had a lower rate than Buckinghamshire. Last year the rate for the County (61) was the lowest recorded for any county in England and Wales.

Dr. E. Weaver Adams (*Slough*) writes:—

“The heavier rate of 1915 is again due to the high prevalence of sickness during the time that the military were in the town. Measles and whooping cough each claimed three infant lives, bronchitis five, and pneumonia five. Premature birth was about the average figure, but convulsions and digestive ailments caused a larger than usual number of deaths, suggesting some disturbing factors in home care.

See also page 52.

The accompanying table, which has been prepared for the first time this year, shows at a glance in what districts and at what age the 365 infant deaths actually occurred. It will be seen that 40 per cent. of infant deaths occur in the first month of life; they are chiefly due to antenatal conditions, congenital malformations and debility, or to premature birth.

DEATHS UNDER ONE YEAR OF AGE.

Districts.	Under 1 Week	1—2 Weeks	2—3 Weeks	3—4 Weeks	Total under 4 Weeks	4 Weeks & under 3 Mos.	3—6 Mos.	6—9 Mos.	9—12 Mos.	Totals under 1 year
Aylesbury	3	...	1	...	4	3	2	6	3	18
Beaconsfield .....	...	...	...	...	...	...	...	...	...	...
Bletchley	2	...	1	1	4	...	1	1	2	8
Buckingham .....	...	1	2	3	6	...	...	1	1	8
Cbesbam	4	...	...	1	5	3	1	...	...	9
Eton .....	...	...	...	1	1	...	1	...	...	2
Linslade .....	...	...	...	...	...	1	...	1	...	2
Marlow	3	...	2	1	6	1	3	1	1	12
Newport Pagnell	1	3	...	...	4	1	1	1	1	8
Slough	4	2	3	...	9	4	8	10	7	38
Wycombe	12	...	1	3	16	10	7	14	5	52
Total Urban	29	6	10	10	55	23	24	35	20	157
Amersham	16	1	...	...	17	6	2	3	5	33
Aylesbury	5	1	3	1	10	5	2	1	1	19
Buckingham	2	...	2	...	4	2	1	2	...	9
Eton	10	2	2	1	15	5	7	11	10	48
Hambleton	1	...	...	...	1	1	...	2	...	4
Long Crendon	2	1	1	1	5	...	...	1	1	7
Newport Pagnell	3	2	...	1	6	4	3	1	5	19
Stratford & Wolverton	7	2	...	...	9	3	1	3	3	19
Wing	3	...	...	...	3	1	1	...	...	5
Winslow	8	...	2	...	10	5	...	2	1	18
Wycombe	8	4	1	1	14	4	2	6	1	27
Total Rural	65	13	11	5	94	36	19	32	27	208
County	94	19	21	15	149	59	43	67	47	365

Deaths of children under four weeks of age represent:—

In Urban Districts	35	%	} Of all deaths under one year.
In Rural Districts	45	%	
In Administrative County	40.6	%	
In Rural England, 1914	43	%	

CAUSES OF DEATH—CANCER.

	1913.		1914.		1915.	
	Number of Deaths.	Rate per 1,000.	Number of Deaths.	Rate per 1,000	Number of Deaths.	Rate per 1,000
Urban Districts.....	82	1·0	95	1·1	72	0·9
Rural Districts.....	150	1·0	169	1·1	154	1·1
Administrative County	232	1·0	264	1·1	226	1·0
<i>England & Wales.....</i>	38,939	·97	39,517	·97	Not yet computed.	
<i>Urban Districts.....</i>	...	1·06	...	·96		
<i>Rural Districts.....</i>	...	·86	...	1·00		

The deaths from cancer include all forms of malignant disease, viz., carcinoma sarcoma, and rodent ulcer.

In urban districts the highest rates are reported from Chesham (1·5) and Newport Pagnell (1·2); and the lowest Aylesbury (0·5), Beaconsfield and Bletchley (0·6).

In rural districts the highest rates are reported from Wycombe (1·7) and Amersham (1·4), while the lowest are from Buckingham (0·5), Stratford and Wolverton (0·9), and Wing (0·9).

The death rate from cancer has been increasing somewhat during the last 25 years. There has been a relative increase partly owing to greater exactitude in classification of the causes of death and partly on account of the increasing longevity of the people, cancer being pre-eminently a disease of old age. It is for this reason that the death rate appears to be relatively high in Buckinghamshire and other rural Counties, whereas the Registrar-General's tables clearly indicate that in reality cancer is more destructive in the town than in the country.

It is noticeable, however, that the death rate from cancer in the County during 1915 is distinctly lower than last year.

CAUSES OF DEATH—CONSUMPTION.

AVERAGE ANNUAL DEATH RATE FROM PULMONARY
TUBERCULOSIS PER 1,000 LIVING:

ENGLAND AND WALES.

TEN YEAR PERIODS.	DEATH RATE.
1861-70	2.47
1871-80	2.12
1881-90	1.72
1891-1900	1.89
1901-1910	1.16

Although the mortality from all forms of consumption has been steadily decreasing for the past fifty years proportionately with the decline in the general death rate and in the mortality rate from infectious diseases, yet in 1914 it caused 50,298 deaths in England and Wales equal to 9.7 per cent. of the mortality from all causes. It is, however, not only the death rate that is of importance to the community, but also the power of tuberculosis for incapacitating from work for long periods of time. Pulmonary tuberculosis, or consumption of the lungs, is responsible for 75 per cent of all deaths from tuberculosis. The following table compares the figures for Buckinghamshire with those for England and Wales (Urban and Rural Districts) for the past four years:—

DEATH RATE FROM CONSUMPTION OF THE LUNGS.

Districts.	1912.		1913.		1914.		1915.	
	Number of Deaths.	Rate per 1,000.	Number of Deaths.	Rate per 1,000.	Number of Deaths.	Rate per 1,000.	Number of Deaths.	Rate per 1,000.
Urban	65	0.8	61	0.7	72	0.85	76	0.98
Rural	99	0.7	84	0.57	81	0.56	88	0.64
County	164	0.73	145	0.64	153	0.66	164	0.76
<i>E. & Wales...</i>	38,083	.98	37,055	.97	38,637	1.04	Not yet computed.	
<i>R. Districts...</i>	...	.86	...	.74	...	.74		
<i>U. Districts...</i>	...	1.07	...	1.04	...	1.12		

The following table shows the number of cases notified in each district in the County during the year 1915:—

CONSUMPTION: ALL FORMS.

URBAN DISTRICTS.	NO. OF CASES NOTIFIED.	RURAL DISTRICTS.	NO. OF CASES NOTIFIED.
Aylesbury	11	Amersham	31
Beaconsfield	—	Aylesbury	15
Bletchley	5	Buckingham	4
Borough of Buckingham	4	Eton	16
Chesham	19	Hambleton	1
Eton	—	Long Crendon	13
Linslade	—	Newport Pagnell	24
Marlow	2	Stratford and Wolverton	9
Newport Pagnell	5	Wing	5
Slough	25	Winslow	1
Borough of Wycombe	27	Wycombe	12
<hr/>		<hr/>	
Total for 1915	98	Total for 1915	131
Total for 1914	160	Total for 1914	160
Total for 1913	179	Total for 1913	251
<hr/>			
Totals for County, 1915		229	
" " " 1914		320	
" " " 1913		430	

The general problem of this disease has been fully dealt with in the County Medical Officer's reports since 1908. Therefore it is only necessary to refer to recent developments as a result of the National Insurance Act; and under this heading Dr. Burra and Dr. Gibbins, the County Tuberculosis Officers, have outlined the following report of work done during the year 1915. The report speaks for itself as to the satisfactory nature of the work undertaken by the County Council and the County Insurance Committee.

(1) *Dispensaries.*

During the year the Dispensaries established by the County Council at Bletchley, Buckingham, Chesham, Newport Pagnell, Slough, and High Wycombe have been in regular use for the examination and advice of patients.

In Aylesbury patients have been seen by appointment either at 65, Buckingham Street, in the Surgery of the practitioner attending the case, or at the patient's home, as it has not been

possible as yet to obtain premises suitable for a permanent Dispensary.

The existing Dispensaries have all received the approval of the Local Government Board, with the exception of that at Buckingham, which has been granted only temporary approval. No more suitable premises have yet been found.

The number of new patients examined was 541, the great majority of whom were sent to the Dispensaries. The distribution of these cases is as follows:—

Aylesbury	52	Buckingham	28
Chesham	86	Slough	95
Wycombe	171	Thame & Henley (Oxon)	
Bletchley	36	Dispensaries	20
Newport Pagnell	53		
		Total	541

In each case the patient was examined, and a report on the condition was sent to the practitioner in attendance on the patient. Many of these cases have been examined more than once during the year, and in addition 257 of the cases seen in previous years were re-examined and kept under observation by the staff.

With regard to the work undertaken for us by the Oxfordshire Voluntary Association there were at the end of the year 26 patients from Buckinghamshire on the books of the Thame Dispensary, 8 on the books at Henley, and 1 on the books at Bicester, making a total of 35.

The total number of cases examined in the County Council Dispensary districts during the year was 798, and of these 472 remained on the books at the end of the year; the remaining 326 cases being those who have died, left the County, or proved to have no signs suggesting tuberculosis.

Of the patients examined during the year 282 were children up to and including 15 years of age, of whom 79 had been previously seen in 1913 or 1914. These are cases referred for special examination after the routine medical inspection of

school children, cases sent by private practitioners, or children who are known to have been in contact with tuberculosis in their homes. Of 203 new cases in children 99 were found on examination to give either definite evidence of tuberculosis in some form, or such signs as to arouse grave suspicion as to their condition. This side of the work of the Dispensaries should be considered most important.

The examination of contacts of all cases of tuberculosis has been extended during the year, and it is hoped that all contacts may be secured in course of time. Rather more than 48 per cent. of the new cases seen in 1915 were contact and suspect cases.

Of the new cases examined (adults and children) 275 showed no evidence of tuberculosis, and of the remaining 266 patients 29 were suffering from non-pulmonary tuberculosis.

The large number of patients who attend give some indication of the value of the Dispensaries. The efficacy of this work depends very largely on the co-operation of the general practitioners throughout the County.

The after care of patients who are discharged from the Sanatorium rests in the hands of the general practitioners; but such cases are asked to visit the Dispensaries periodically so that their condition may be kept under observation.

Home visiting is carried out almost entirely by the Nurses attached to the Dispensary Staff, and good work has been done by Nurse Eastwood in North Bucks, Nurse Aldana in Mid Bucks, and Nurse Rose in South Bucks. The latter unfortunately was seriously indisposed during the greater part of the year, but has now returned to her duties.

A report of the condition of the patient and of the home is made by the nurses in all cases who are visited; and by their help many contact cases have been secured for examination who had been previously unwilling to come to the Dispensaries.

(2) *Examination of Sputum.*

Sputum examination has been carried out in the laboratory at 65, Buckingham Street. Specimens are sent by practitioners chiefly in those cases where there is some doubt as to the diagnosis. During the year 147 examinations were made of 140 specimens.

(3) *Institutional Treatment.*

Institutional treatment has been provided for 141 cases, of which 15 were cases of non-pulmonary disease.

All pulmonary cases, both adults and children, have been accommodated at the Berks and Bucks Joint Sanatorium, Peppard Common, except one, for which, because of exceptional circumstances, treatment was provided at King Edward VII. Sanatorium, Midhurst.

Treatment for non-pulmonary cases was secured at the Royal Sea Bathing Hospital, Margate, and for a few children at Lord Mayor Treloar's Hospital, Alton, while one case was sent to the out-patient department of St. Thomas's Hospital for Finsen Light Treatment.

During 1915 patients were sent to:—

Berks and Bucks Joint Sanatorium—125 adults and children, of whom 40 were resident at the end of the year.

King Edward VII. Sanatorium, Midhurst—1 adult, resident at the end of the year.

Royal Sea Bathing Hospital, Margate—8 adults and children, 2 of whom were resident at the end of the year.

Lord Mayor Treloar's Hospital, Alton—6 children, of whom 4 were resident at the end of the year.

Friedenheim Hospital (Home for the dying)—1 adult.

St. Thomas's Hospital (Out-patient Department)—1 adult for Light treatment.

One patient, who was treated with artificial pneumothorax, returned three times to the Berks and Bucks Joint Sanatorium to be "re-filled."

One case, an adult, in which the diagnosis was doubtful, was sent to the Royal Bucks Hospital for observation, and proved not tuberculous.

The accommodation at the Sanatorium has been extended, and at the present time there are available for Buckinghamshire patients 15 beds for men, 10 beds for women, and 20 beds for children.

The patients at the Sanatorium have been seen monthly by the Tuberculosis Officer in consultation with the Medical Superintendent, Dr. Carling.

The condition on discharge of 94 patients who completed treatment at the Sanatoria in 1915 is shown in the following table:—

Improved	80
Not Improved	10
Disease Arrested	1
Worse	1
Died	2

The results of treatment have been very satisfactory when the type of the cases which were sent to the Sanatorium is considered.

(4) *Shelters.*

Shelters have been in use during the year, both for the isolation of the worse cases and for the continuance of treatment of patients on their return from the Sanatorium. In the case of patients whose home circumstances will not allow of their having a bedroom to themselves, shelters are of great value, in that they provide additional accommodation. But in some of the cases of advanced disease shelters are not entirely suitable, and hospital accommodation for them is desirable; this problem is a difficult one, and has been under consideration for some time.

(5) *Housing Conditions of Patients.*

A report on the housing conditions of all cases of tuberculosis which are notified is sent in by the Medical Officer of Health

of the district in which the case occurs. These reports are valuable in showing in what respect, if any, the home circumstances of patients may be improved, and the manner in which the possible risk to other members of the family may be minimised.

The principal difficulty arises in connection with the bedroom accommodation, and it is often impossible for the patient to sleep alone in a room without inconvenience to the rest of the family. In nearly 90 per cent. of the houses there are three or fewer bedrooms, and in 56 per cent. of these cases the average number of occupants of each room is two or more.

The number of reports received is not large enough to allow one to draw conclusions as to the possibility of connection between housing conditions and the occurrence of tuberculosis.

The reports are drawn up by the Medical Officers and the Sanitary Inspectors of the respective districts, and the services rendered in this respect are of great value both to the patients and to the tuberculosis staff.

THE CONTROL OF EPIDEMIC DISEASES.

It is not so much the actual mortality rate of infectious diseases that is important to the community, but rather the prolonged duration of the attacks, their serious after-effects, and the interference with employment or school attendance which is involved. Therefore it is necessary to consider what measures are taken in the County for the prevention and control of epidemic diseases, firstly on general principles, and then for each individual disease.

CASES OF INFECTIOUS DISEASES NOTIFIED IN URBAN DISTRICTS DURING THE YEAR 1915.

Notifiable Disease.	Aylesbury.	Beaconsfield.	Bletchley.	Buckingham.	Chesham.	Eton.	Linslade.	Marlow.	Newport Pagnell.	Slough.	Wycombe.	Totals.
Smallpox .....	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	27	...	5	4	1	...	9	...	...	9	19	74
Scarlet Fever	66	3	14	8	5	3	1	25	4	12	118	259
Enteric Fever	1	3	1	...	...	...	...	...	...	...	...	5
Puerperal Fever	1	...	...	...	...	...	...	...	...	...	2	3
Cerebro-Spinal Fever .....	...	1	2	...	...	...	...	1	..	1	4	9
Poliomyelitis .....	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	11	...	4	4	14	...	...	2	5	13	25	78
Other forms of Tuberculosis..	...	...	1	...	5	...	...	...	...	12	2	20
Ophthalmia Neonatorum.....	1	1	...	...	1	...	...	1	...	...	2	6
Measles .....	...	...	44	...	...	...	...	...	...	...	...	44
Chicken Pox .....	...	...	12	1	...	5	...	...	1	43	...	62

Notification and Weekly Returns.—The usual procedure with regard to notification has been carried out during the year, while in the case of measles, whooping cough, and other non-notifiable diseases the arrangements by which Head teachers notify these

cases in duplicate to the District Medical Officers of Health as well as to the School Medical Officer have been continued.

At the end of each month a return of the epidemic state of the County is printed and sent to every Medical Officer of Health, so that he can compare the state of his district with that of the rest of the County. In the event of any threatened outbreak a similar return is prepared in manuscript and forwarded week by week to the Medical Officers of Health of districts adjoining the affected district. These County returns show the *parishes* affected—an essential point in rural sanitary administration—whereas the Local Government Board's weekly return deals only with whole areas. Since August, 1914, a weekly return has been furnished to the local Military Authorities, who have co-operated most cordially with the County Health Office.

**CASES OF INFECTIOUS DISEASES NOTIFIED IN RURAL
DISTRICTS DURING THE YEAR 1915.**

Notifiable Disease.	Amersham.	Aylesbury.	Buckingham.	Eton.	Hambleton.	Long Crendon.	Newport Pagnell.	Stratford & Wolverton.	Wing.	Winslow.	Wycombe.	Totals.
Small Pox .....	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	3	1	2	30	1	5	47	8	1	11	16	125
Scarlet Fever.....	10	34	17	29	2	8	50	16	5	12	54	237
Enteric Fever	1	1	...	1	2	...	6	5	...	...	...	16
Puerperal Fever .....	...	...	...	...	1	...	...	...	...	...	1	2
Cerebro-Spinal Fever .....	...	...	...	1	...	...	2	...	...	...	1	4
Poliomyelitis .....	...	...	...	1	...	...	2	...	...	...	...	3
Pulmonary Tuberculosis	23	10	4	11	1	13	19	9	4	1	10	105
Other forms of Tuberculosis..	8	5	...	5	...	...	5	...	1	...	2	26
Ophthalmia Neonatorum.....	...	...	...	3	...	...	...	2	1	...	1	7
Chicken Pox .....	...	...	14	59	...	...	6	...	...	...	...	79

Other Measures.—Besides the compulsory Acts of Parliament, there are two adoptive Acts under which local authorities have additional powers for the control of infectious disease. They are (a) the Infectious Disease Prevention Act, 1890, and (b) the Public Health Act Amendment Act, 1907. The former affords greater facilities to the Sanitary Authority (1) for inspecting dairies and preventing the sale of infected milk; (2) for detaining in hospitals persons suffering from infectious disease; (3) for cleansing and disinfecting premises and articles. The latter, among other useful sanitary provisions, imposes penalties upon sufferers from infectious diseases who continue to engage in any occupation or to carry on a trade, and prohibits school attendance and the conveyance of the infected in public vehicles. It enables local authorities to obtain lists of children attending any school as well as of dairy-men's customers and to provide for the home nursing of cases of infectious disease. Many of the Sanitary Authorities have now adopted the more important sanitary clauses of these Acts.

Disinfection of houses and other premises, although a matter of secondary importance in the control of infectious disease, is carefully carried out in the County whenever it is considered advisable. The method usually adopted is the spraying of the rooms with formaldehyde, and fumigation by vaporising tablets in a "lamp."

Disinfection of Clothing and Bedding.—Steam disinfectors have been provided in connection with three urban (Linslade, Slough, and Wycombe) and two rural (Eton and Wing) districts. The Medical Officer of Health for Aylesbury urges the necessity for the provision of a steam disinfecter.

The fumigation, or soaking in liquid disinfectant, of infected clothes and bedding cannot be regarded as efficacious.

SMALLPOX.

No cases of Smallpox were reported in the County during the year.

SCARLET FEVER.

Out of 497 cases of scarlet fever notified during the year, six proved fatal. This fact shows that the disease in spite of

its considerable prevalence has been of a mild variety. The only practicable and available methods for dealing with outbreaks of this disease were fully detailed in the report for the year 1910. The actual number of cases which occurred in each district may be seen in the tables on pages 24 and 25.

The rate of incidence (2·3) per 1,000 of the population of the County, although much below that for England and Wales, is higher than that of 15 other administrative Counties. Aylesbury, Wycombe, and Marlow are the districts which show the highest incidence in relation to their population. The urban districts and (in the case of rural districts) the parishes chiefly affected are shown in the following table.

OUTBREAKS OF SCARLET FEVER DURING 1915.

Urban Districts.	Number of cases notified.	Attack rate per 1,000 population.	Rural Districts.	Number of cases notified.	Attack rate per 1,000 population.	Parishes chiefly affected, with number of cases.
Aylesbury...	66	6·1	Newport Pagnell ...	50	2·7	Chicheley 12 Moulsoe 13 Olney 9 New Bradwell 6 Woburn Sands ... 5
Wycombe ...	118	6·0				
Marlow	25	5·4				
Buckingham	14	3·0	Aylesbury ...	34	2·3	Upper Winchendon 8 Quainton..... 6 Aston Clinton 4
			Buckingham	17	2·2	Chackmore 6 Steeple Claydon ... 5 Preston Bissett ... 4
			Wycombe.....	54	2·1	Wycombe 14 Hazlemere 11 Wendover 6 West Wycombe ... 5
			Eton	29	1·1	Langley 12

Administrative County, 497 cases. Attack rate, 2·3 per 1,000.

DIPHTHERIA.

Diphtheria caused 24 deaths in the County, equal to a death rate of 0·1 per 1,000 cases; 199 cases were notified, giving an attack rate per 1,000 population of 0·9 compared with 80 cases notified in the previous year, with an attack rate of 0·3. The urban districts of Linslade and Aylesbury, and the rural

districts of Newport Pagnell, Winslow, and Eton show the greatest incidence. Fairly severe outbreaks occurred in the parishes of Bradwell (34 cases), Langley (24 cases), Woburn Sands (11 cases), and Stewkley (10 cases). Of these parishes Bradwell and Woburn Sands, both in the Newport Pagnell Rural District, were also visited by outbreaks of Scarlet Fever at the same time. For the rest, the cases were mostly sporadic and distributed uniformly throughout the year.

Dr. Digby White (Newport Pagnell Rural District) gives an interesting account of the Bradwell outbreak:—

“Forty-seven cases were notified in the Rural District, and distributed as follows:—Bradwell, 34; Woburn Sands, 11; Lavendon, 1; Olney, 1.

“One case, aged 6, in Bradwell, was fatal. One case, aged 46, notified in Bradwell as diphtheria, died, and the cause of death was certified as œdema of the larynx.

“The outbreak in Bradwell presented some interesting features. The disease appeared in thirty houses. Sixty-one adults and 55 children were exposed to infection, but secondary cases occurred in one house only.

“Early notification was not universal by any means. The disease was generally of a mild type, and frequently it was found that one child in a family was ill, and under medical treatment, for several days before notification, and that the other children in the family were attending school up to the time of the enquiry after notification.

“By investigation of the school absentee lists four cases were found not medically attended, and probably would have been missed altogether without the assistance of the school authorities. One child was found actually suffering from diphtheria in class in the boys' school.

“In two cases children returned to school before their houses were disinfected.

“The milk supply was obtained from five separate dairies.

“Swabs were examined free of charge, and notwithstanding several appeals for early notification it was not until late in the year that the majority of cases were notified before the diagnosis was confirmed by the bacteriologist.

“Anti-toxin was supplied free of charge; but was not used in all cases. One medical man, practising in the locality, considers himself competent to decide that anti-toxin is unnecessary in some cases of diphtheria, and even thought it expedient to publish his opinions in a letter to the local Press.

“The first two cases were notified on 1st and 7th **July**, and had been ill from 22nd June and 2nd July respectively. The third case was notified on 12th July. All were aged 5, and attended the same class in

the infants' school. From the first and third families two boys and two girls attended the boys' and girls' schools up to the date of notification. The second case was an only child of a teacher in the infants' school. Tracheotomy was performed in this case.

"Structural alterations were in progress in the infants' school, and the infected class was found overcrowded in one room. All the children in this room were examined, and eight swabs were taken. The result was negative. In consultation with the County School Medical Officer arrangements were made to abate the overcrowding.

"Thirty-six children, absent from this class, were followed up. An epidemic of measles was in progress, and most of the absentees were suffering from this disease. One was found to be suffering from diphtheria, without medical attendance. This child died on 18th July, and infected a child, aged 4, living next door, who had not attended school. This case was notified 21st July, and in the same family two, aged 7 and 9, on 26th July, and one, aged 12, on 29th July.

"In **August** there were two cases, notified on 14th and 18th. The first, aged 7, attended the infants' school. The second, aged 3, had not been to school, and lived in an isolated three-roomed cottage in very bad sanitary condition. There were two adults and three children in this family.

In **September** there were six cases. Notification of the first was received on 3rd September. The patient, aged 9, attended the girls' school; she was ill on 28th August. Two brothers, aged 12 and 11, attended the boys' school, and a sister, aged 7, the infants' school up to the morning session on 3rd September. On 7th and 8th there were two cases attending the infants' school, and two cases in the boys' school on 9th and 26th, and on 30th another case in the infants' school. This case was infected probably by communication with an infected family.

"In **October** there were eight cases. One in the infants' school, notified on 5th, one in the girls' school on 7th, and on 7th, a girl, aged 13, who had left school, and was in service with the family in which a case was notified on 30th September. This girl was ill on 3rd October, and was not medically attended until 7th October. Her father, the school caretaker, attended to his duties until 7th October, and his son attended the boys' school on the same day. The 8th October was a school holiday. On 12th two cases attending the infants' school were notified. One of these was reported absent from school on 7th October, and was found to be suffering from diphtheria, without medical attendance.

"On 12th October the schools were closed for cleaning and fumigation under the Sanitary Inspector's supervision. There was difficulty in obtaining sufficient labour, and the boys' and girls' schools were not re-opened until 25th October; the infants' a week later.

"Under instructions from the Sanitary Committee, by resolution dated 13th October, the Clerk wrote to all medical men practising in the locality, emphasising the necessity for early notification.

"On 30th October another case occurred, a girl aged 13, who had attended school from 25th to 28th October.

"In **November** there were four cases. The first, notified on 25th, attended a picture palace on the first day of his illness, and was unable to remain to the end of the performance. An absentee from the same school class was found suffering from diphtheria, without medical attendance. On 26th November a case was notified in Old Bradwell. The patient, a woman aged 23, was employed in the printing works in Wolverton. She had been ill for six days when notified, and had attended a dancing class in the Bradwell Assembly Rooms three days before onset. There were no children in this family. On 30th November the fourth notification was received. The patient was in the same school class as the first cases notified this month. He had been under medical treatment for four days when notified, and his brother had attended the infants' school during that time.

"In **December** there were five cases. The first, notified 2nd December, was a boy in the same school class as the previous recent cases. A visit to the school discovered a boy in this class obviously suffering from diphtheria, and an absentee was found also suffering, but not medically attended. On 5th December another boy attending this class was notified. This notification was received on the second day of illness. On 2nd December a girl aged 8 was notified. She had been under medical treatment for a throat affection since 23rd November, and two other children in the family had attended the infants' school until the date of notification.

"In December, when five cases occurred in the boys' school, it seemed certain that there was a carrier, and all children in the suspected classroom were excluded. As soon as a sufficient number of swabs was obtained this class was re-assembled. Thirty attended, and there were five absentees not accounted for. Thirty children were swabbed in school, and five absentees at home. One of the latter, who had been notified as suffering from diphtheria on 26th July, and had been certified as free from infection, was found in bed, suffering from what appeared to be acute follicular tonsillitis. The swab taken from his throat gave a rich culture of diphtheria bacilli. Five other swabs gave positive results. The whole class was excluded until the end of the term, and the medical attendants of the children who gave positive swabs were informed, and requested to institute active treatment.

"One doubtful case was notified on 31st December, and withdrawn.

"The outbreak in **Woburn Sands** was altogether different in character.

"With the exception of the second case, all were notified without delay, and anti-toxin was used correctly in all cases—that is, administered as soon as possible.

"The cases were part of an outbreak in the adjoining portion of the Amptill Rural District, and generally appeared to be connected with the elementary school situated in that district. The school was closed in the first week in December.

"The drainage and water supply of this locality are excellent. House refuse is scavenged by contract. At the beginning of the year the contractor's work was irregular and unsatisfactory. A new contract was made in April, and the work was carried out efficiently during the remainder of the year. The milk supply of the infected families was obtained from four separate dairies.

"The first case was notified on 11th **May**. The patient, a boy aged 11, lived with his parents in a detached four-roomed cottage, which was in bad sanitary condition.

"There was no evidence of origin of infection.

"The next case, notified on 22nd **July**, was a girl aged 15, who came home ill from domestic service in Aspley Guise on 8th July. The diagnosis was not considered certain, hence the delay in notifying. There were two adults and three children in the family, and the patient was found with them in the living room when notified.

"On 10th **September** the first case of the outbreak was notified. The patient, a boy aged 8, was attending school, and cases had been occurring in Aspley Heath and Aspley Guise. One other child, a boy aged 4, had been removed from the house before the notification was received.

"On 27th September the second case, a boy aged 6, the only child in the house, was notified. He was attending school.

"On 23rd **October** there was another case, a girl aged 13, an only child living with her parents, and attending school.

"In **November** there were five cases. The first, notified 1st November, was a boy aged 8, attending school. There were two other children, aged 3 and 1, in the family. With this notification I received a report of insanitary conditions adjoining the school. A lane and a field appeared to be used as a general refuse dumping ground. Both are in the Ampthill Rural District, and the complaint was forwarded to that Authority.

"On November 9th a visitor, aged 28, who had come from Kempston three days before the beginning of her illness, was notified. There were two other adults and two children in the family.

"On 12th November a girl, aged 9, was notified. She was the only child in the house, and had attended school on the first day of her illness. Next day her mother was found to be suffering from nasal diphtheria.

"This is the only instance of two cases in the same house.

"The next case was notified on 20th November. The patient was a boy, aged 6, who had attended school until the first day of his illness. There were two other children, aged 10 and 13, in the family.

On 25th **December** the last case was notified. The patient, a girl aged 11, had not been to school for three weeks. There were three adults and three other children in the family. There was no definite evidence of the origin of infection.

In **Lavendon** one case was notified on 28th March. The patient, aged 21, was sent home ill from Bedford. The house contained four adults and one child.

"In **Olney** one case was notified on 17th October. The patient, a girl aged 6, had been removed to Northampton Hospital two days previously. The conveyance and house were disinfected. Troops billeted in the house were removed. There was no evidence of the origin of infection.

"Since 1910 the District Council have provided anti-toxin, and pay for primary and secondary bacteriological examinations. Dr. White is able to supply active anti-toxin immediately when required."

ENTERIC FEVER.

Twenty-one cases were notified from nine districts, with six deaths. Six cases (three fatal) occurred in the parish of New Bradwell (Newport Pagnell R.D.) and five cases with two deaths in the parish of Wolverton (Stratford and Wolverton R.D.).

PUERPERAL FEVER.

Five isolated cases were reported from four separate districts.

CEREBRO-SPINAL FEVER.

Thirteen cases were notified during the year from eight districts—the largest number in any one district being four, in the Borough of Wycombe. In no case does the source of infection appear to have been discovered. Dr. Nicholson gives the following account of the procedure adopted with regard to three cases that occurred in Bletchley:—

"Three cases occurred—two civil, one military. All recovered. The first case, reported on March 12th, was that of a Sapper, aged 19 years, in the Royal Engineers. He was billeted with others in a disused shop in Victoria Road. His previous residence was at Birmingham. He was taken ill on March 5th. As soon as the case was notified he was removed to the 1st Eastern General Hospital at Cambridge, where a bacteriological confirmation of the disease was made. Seven contacts were isolated and kept under observation, and there were no further developments. A special report was made to the Local Government Board.

"The second case reported on October 12th was that of a male resident, aged 23 years, who had been ill since Sept. 25th, and had returned from Canada in July, where he had been acting as cook in a Y.M.C.A. home. Cases of the disease had occurred there: whether he was a carrier all this time or not it is difficult to decide, but there was no other likely solution of the invasion of the disease. There was no

bacteriological confirmation in this case. Isolation and disinfection were carried out.

"The remaining case was that of a girl aged 11 years, a scholar at the Bletchley Road Council School. She had not been away from the district, and there had been no one staying in the house. The source of infection could not be recognised, and no bacteriological confirmation of the disease was made.

Dr. Digby White reports:—

"Two cases were notified, and both were fatal.

"The first, a man aged 20, was notified in Olney on 15th March. The notification was withdrawn next day. In June he was admitted to the Northampton General Hospital, and was notified to be suffering from cerebro-spinal meningitis. He died in the Hospital.

"The other case, a man aged 20, was notified in Castlethorpe on 26th March, the second day of illness, and died in two days.

"There was no evidence of the origin of infection in either case."

Dr. New (Amersham R.D.) writes concerning two military cases of cerebro-spinal fever:—

"CASE 1.—Private, King's Royal Rifles. This soldier, aged 30, was unconscious when I saw him, and presented the chief evidences of the disease in a fulminating form. He died in a few hours after removal to the Military Hospital. I examined the contacts, eight in all, who occupied the same billet, and took post-nasal specimens in each case. These all proved negative.

"CASE 2.—Lance-Corporal, aged 29, came here on leave from Aldershot. He fell ill upon the night of arrival, and was showing symptoms of this disease when seen early the next morning. He was removed early the same afternoon to the Military Hospital, where he succumbed to the disease after some three weeks. By prompt isolation the only contact to be considered was the mistress of the house. Bacteriological examination in her case proved negative."

POLIOMYELITIS.

Three cases were notified in two rural districts.

Dr. Digby White (Newport Pagnell R.D.) reports:—

"Two cases were notified in Olney on September 11th and 12th.

"The first case, a boy aged 5, had been ill for six days when notified, and died the same day. Spinal fluid taken from this case was sterile. There were five other children in the family.

"The second case, a boy aged 6, had been ill for six days when notified. There were two other boys, aged 15 and 13, in the family. The attack was not severe, and the patient recovered completely.

"There was no evidence of the origin of infection in either cases."

OPHTHALMIA NEONATORUM.

This disease is not a common one in the County, only thirteen cases having been notified during the year. In most cases the services of a nurse were available for the purpose of dressing the inflamed eyes.

ATTACK RATE OF CERTAIN INFECTIOUS OR EPIDEMIC DISEASES,
COMPILED FROM LOCAL GOVERNMENT BOARD TABLES,
1913, 1914, AND 1915.

Rates per 1,000 of the population.

	1913.				1914.				1915.			
	Scarlet Fever	Diphtheria	Enteric Fever	Puerperal Fever	Scarlet Fever	Diphtheria	Enteric Fever	Puerperal Fever	Scarlet Fever	Diphtheria	Enteric Fever	Puerperal Fever
Urban Districts.....	2·3	0·4	0·1	0·02	2·8	0·4	0·1	0·02	3·35	0·9	0·06	0·44
Rural Districts	2·3	0·2	0·1	0·0	2·4	0·3	0·1	0·03	1·72	0·9	0·11	0·01
Administrative County	2·3	0·3	0·1	0·03	2·5	0·3	0·1	0·03	2·30	0·9	0·09	0·02
England and Wales ...	3·6	1·4	0·2	0·05	4·5	1·6	0·2	0·06	3·59	1·52	0·18	0·06
Administrative Counties (excluding London)	2·9	1·3	0·2	0·04	4·01	1·52	0·23	0·05	3·32	1·40	0·17	0·04

NON-NOTIFIABLE INFECTIOUS DISEASES.

Among non-notifiable diseases, measles, whooping cough, and mumps were very prevalent in many parts of the County during the year. The methods of dealing with these various diseases have been fully discussed in previous reports. Control, so far as is practicable, is exercised in connection with the public elementary schools—seldom with any conspicuous success, as these diseases are under existing conditions almost uncontrollable.

CHICKEN-POX.

Chicken-pox was made notifiable in the urban districts of Bletchley, Buckingham, Newport Pagnell, and Slough, and in the rural districts of Buckingham, Eton, and Newport Pagnell.

MEASLES.

The notification of cases of measles was put in operation in the urban district of Bletchley, and 444 cases were then brought to the notice of the Medical Officer of Health.

Under the Public Health (Measles and German Measles) Regulations, 1915, Measles and German Measles are scheduled as notifiable diseases as from 1st January, 1916, and Local Authorities are empowered to provide or contract for the provision of medical assistance for the poorer inhabitants of their districts when suffering from either disease.

In the months of October and November there was an outbreak of Measles in Aylesbury, necessitating the closure of the Council Infants' School for three weeks. As one of the Education Committee's nurses was available it seemed a good opportunity, with the approval and co-operation of the Medical Officer of Health, Dr. Parrott, to test the value of home visiting with advice and instructions to mothers on the care of children suffering and convalescing from Measles.

During the eight days she was working in Aylesbury, Nurse Aldana was able to pay 172 visits to 82 homes. She was well received by the mothers, and though it does not seem probable that this plan of home visiting can do much to limit an epidemic, the visits can be of considerable practical use and helpfulness.

Seventeen children were found suffering from inflamed eyes. In each case the mother was shown how to bathe the eyes with boracic solution, the children were kept under supervision, and in all cases the inflammation cleared up within a few days.

Similar visits were paid by Nurse Aldana at Stokenchurch, where there was a small outbreak of measles.

ISOLATION HOSPITALS.

The problem of isolation hospitals has been fully dealt with in recent years. The proposals for the establishment of a Joint Smallpox Hospital for South Bucks, details of which were set out in last year's report, have been dropped temporarily owing to the war.

Dr. Parrott (Aylesbury U.D.) reports the completion of a new block at the District Council's hospital, which will provide accommodation for nine more patients. Extensions of an old block are in progress.

Dr. E. Weaver Adams (Slough U.D.) writes :—

"The town has not yet become possessed of an isolation building for the reception of cases requiring removal from their own homes. Our difficulty has always been the lack of a site.

"When removal for isolation is necessary we depend upon various other authorities for accommodation of a temporary kind. Those able to pay for themselves are frequently removed to the London Fever Hospital, while others are accepted at Chiswick and Acton Isolation Hospitals, etc. Until the middle of 1915 we enjoyed the invitation of our neighbours, the Eton Rural Council, to send cases of scarlet fever or diphtheria to their Hospital at Cippenham at 9s. per day. In May a case of diphtheria occurred requiring the acceptance of that invitation, and we gladly availed ourselves of it. However, about the middle of 1915 the Rural Authority withdrew its offer without explanation, and any further use of that Hospital will be a matter of future negotiation.

"In the course of many years' experience I am becoming increasingly satisfied with the efficiency of home-isolation in a district like Slough, under careful supervision, and with an intelligent and well-instructed population. With reasonable care we have perfectly successfully managed at least a hundred cases of scarlet fever in their homes in the last three years, and I find this evidence too strong to be negated by the mere assertions of those who say it cannot be safely done.

"Since the days of antiseptics, scarlet fever has become a very innocuous disease. Before those days as much as 30 per cent. mortality was met with in some virulent epidemics, but under modern treatment this seems impossible.

"Where diphtheria is in question we have a more deadly disease, but one which is frequently so promptly controlled by anti-toxin that it is really more than half cured before removal to a hospital can be carried out. And the virulent cases may be so bad that, as far as the patient is concerned, removal, even if possible, is a matter of no advantage. But although home-isolation can often be satisfactory in this disease also, it is undoubtedly safer to remove many cases for the benefit of

other dwellers in the same house, and it is chiefly on account of this disease that this district needs a satisfactory arrangement for isolation. Cases have been sent in the past to the Eton Rural Hospital, to Uxbridge Isolation Hospital, and to Chiswick, and the cases that occur at Fairview Convalescent Home are promptly sent to a Metropolitan Asylums Board Hospital. In the event of a serious epidemic we should, perhaps, find ourselves forced to improvise a hospital by taking a building in the town. There is really no risk to neighbouring houses, and we could provide the necessary furniture and nurses in a few hours. Anti-toxin is provided by the Council, and may be used by any practitioner as a preventative as well as in its curative capacity.

“The isolation of small-pox is similarly unprovided for, but we have successfully dealt with outbreaks in years gone by on similar lines to those we adopt for diphtheria and scarlet fever. But one has to admit that in small-pox we have an even more deadly foe than diphtheria, and one less easily isolated. It seems fairly clear that this disease does travel in the atmosphere surrounding places where it is treated, and therefore the taking of an empty house in the town for isolation of any aggregation of cases is risky. Vaccination of everybody in the neighbourhood would reduce the risk enormously, but it is not always easily managed, and valuable time may be lost.

“The County Medical Officer is maturing a scheme for a South Bucks Small-Pox Hospital, which, run on careful lines, will provide much safety and protection at a low cost. But, like many other plans, it awaits the termination of the war.”

THE HOUSING PROBLEM.

The Annual Report for 1914 contained a summary of the housing problem brought up to date. No housing schemes by local authorities were undertaken during the year. Ordinary improvements in existing houses have been carried out under great difficulties owing to the war—dear money and shortage of labour.

In the case of Wycombe Rural District, Dr. Dickson reports:—

“On March 12th the Local Government Board held an inquiry with reference to the Council’s application for a loan to carry out a housing scheme at *Beacons Bottom*. Evidence was produced that at least six houses were required, and some of the houses in the hamlet were not in a habitable condition, and could not be closed owing to the scarcity of dwellings in the neighbourhood. It was stated that houses would be erected by private enterprise, and since the enquiry two have been put up. They are let at five shillings a week.

“The Council’s application was refused, and since then no further steps have been taken by the Council to provide houses in this or other parts of the district.

“General inspections under the Housing and Town Planning Regulations have been continued. The Inspectors report that it becomes increasingly difficult to get necessary repairs carried out or really bad properties put in habitable repair.

“If asked to execute extensive repairs, owners say that they cannot meet the requirements, and would prefer to close the houses.

“The scarcity of houses also makes it more difficult to deal with cases of overcrowding.”

Dr. E. Weaver Adams (Slough) writes:—

“The Sanitary Inspector’s report sets out in detail the work systematically under progress of the compilation of a complete register of the dwellings of the district. Six hundred and ninety-two houses have now been inspected out of 3,616.

“As in former reports, it must be noted with regret that the cubical contents of many rooms is too low for the number of occupants. It is a matter of experimental experience that 1,000 cubic feet per adult is a thoroughly satisfactory space, but there are many cottages on the register showing that two adults and a child commonly occupy bedrooms of about 900 cubic feet, without any deductions for furniture. One thousand cubic feet per adult is perhaps ideal, and the common

lodging house standard is 300 cubic feet per adult, but even that standard is not always attained in small cottages.

“The immediate remedy is—wide open windows and warm bed garments. The remote remedy is—better houses.

Dr. Vaisey (Winslow Rural District), speaking of the housing problem in *Stewkley*, writes as follows:—

“Now I strongly urge other sanitary improvements. The owners are mostly poor, and there is no large landlord to call on to improve his property. The result is that the houses are going from bad to worse, and the sanitary conditions particularly must be altered.” (See also page 42.)

The following tables show the routine work that has been carried out during the year:—

**Summary of Returns furnished by Medical Officers of Health
under the Housing Regulations, 1910.**

URBAN DISTRICTS.

	Aylesbury	Beaconsfield	Bletchley	Buckingham	Chesham	Eton *	Linlade	Marlow	Newport Pagnell	Slough	Wycombe
Houses inspected	53	..	..	53	..	..	..	256	124	243	82
Houses unfit for habitation	18	..	..	1	..	..	..	..	..	..	4
Representations made to L. A. ....	..	..	..	1	..	..	..	..	..	..	4
Closing Orders made .....	..	..	..	1	..	..	..	..	..	..	1
Houses the defects of which were remedied without Closing Orders ...	35	..	..	20	..	..	..	..	26	..	75
Houses the defects in which were remedied after Closing Orders.....	..	..	..	..	..	..	..	..	..	..	1
<hr/>											
General character of defects:—											
Drainage defects	77	..	..	3	..	..	..	15	2	9	31
Closet accommodation insufficient or defective	123	..	..	5	..	..	..	29	33	9	40
Water supply exposed to surface pollution .....	..	..	..	..	..	..	..	..	..	..	6
Insufficient circulation of air	12	..	..	..	..	..	..	..	1	5	28
Insufficient ventilation .....	..	..	..	..	..	..	..	..	..	..	..
Insufficient light	9	..	..	..	..	..	..	2	..	3	3
Dampness	40	..	..	6	..	..	..	18	49	125	50
Dirty by landlord's default	44	..	..	3	..	..	..	..	6	30	33
Dirty by tenant's default	2	..	..	2	..	..	..	..	..	5	4
Dirty by default of landlord & tenant	2	..	..	..	..	..	..	17	1	17	..
Insufficient paving	36	..	..	4	..	..	..	21	46	40	55
Defective methods of refuse disposal	46	..	..	6	..	..	..	37	76	14	..
<hr/>											
Internal defects:—											
Walls, ceilings, floors, &c.	297	..	..	10	..	..	..	15	23	67	26
Defective roofs, gutters, & down pipes	45	..	..	1	..	..	..	26	28	23	51
Absence of sinks .....	..	..	..	..	..	..	..	..	..	..	..
Overcrowding .....	..	..	..	..	..	..	..	..	..	..	1
Unsuitable outbuildings.....	..	..	..	..	..	..	..	..	..	..	25

* It is to be noted that no report of work done has been furnished by the Eton Urban District Council.

**Summary of Returns furnished by Medical Officers of Health
under the Housing Regulations, 1910.**

RURAL DISTRICTS.

	Amersham	Aylesbury	Buckingham	Eton*	Hambleton	Long Orendon	Newport Pagnell	Stratford & Wolverton	Wing	Winslow	Wycombe
Houses inspected	237	266	57	...	98	36	590	113	32	152	311
Houses unfit for habitation	2	57	2	...	...	...	16	2	2	...	5
Representations made to L. A. ....	...	...	2	...	...	...	10	..	2	...	5
Closing Orders made.....	...	...	1	...	...	...	5	...	...	...	5
Houses the defects in which were remedied without Closing Orders ...	142	57	18	...	17	10	517	57	...	29	275
Houses the defects in which were remedied after Closing Orders.....	...	...	...	...	...	...	1	...	...	1	1
General Character of Defects:—											
Drainage defects	18	84	4	...	...	3	305	5	1	21	92
Closet accommodation insufficient or defective	7	99	6	...	8	5	391	4	...	19	95
Water supply exposed to surface pollution .....	...	12	...	...	1	...	105	...	...	2	9
Insufficient circulation of air.....	...	...	7	...	...	...	31	...	...	6	23
Insufficient ventilation	9	...	7	...	...	...	31	...	...	6	23
Insufficient light .....	...	1	5	...	...	...	26	...	...	3	3
Dampness	15	22	4	...	3	...	229	10	1	16	55
Dirty by landlord's default.....	22	57	1	...	6	...	119	16	...	20	7
Dirty by tenant's default	8	6	1	...	2	...	5	...	...	...	17
Dirty by default of landlord & tenant	...	5	1	...	...	4	27	2	14	11	26
Insufficient paving.....	11	7	4	...	...	...	151	26	9	10	25
Defective methods of refuse disposal	3	...	...	...	2	...	213	...	...	...	6
Internal Defects:—											
Walls, ceilings, floors, &c.	31	47	5	...	17	3	252	7	1	27	64
Defective roofs, gutters & down pipes	28	20	5	...	5	3	177	12	...	8	55
Absence of sinks.....	...	...	...	...	...	...	...	...	...	...	...
Overcrowding .....	...	...	...	...	...	...	...	...	...	...	...
Unsuitable outbuildings .....	...	...	...	...	...	...	..	...	...	...	...

Wing.—2 houses closed voluntarily.

* It is to be noted that no report of work done has been furnished by the Eton Rural District Council.

DRAINAGE AND SEWAGE DISPOSAL.

The reports for the year 1914 contained a brief summary of the various local system of drainage and sewerage throughout the County.

The only alteration has been the installation of a new sewerage plant at Beaconsfield, constructed to take the sewage of the northern or new part of the town. The works are capable of disposing of 75,000 gallons of sewage in 24 hours, and can be enlarged to dispose of a larger amount as the population of the town increases.

Dr. Douglas Bull (Stratford and Wolverton R.D.) writes of the Wolverton Sewage Disposal Works as follows:—

“Considerable difficulty has been experienced at these works during the year owing to various causes. In the first place, a considerable amount of grease and oil continue to reach the works from time to time, the character and quantity of the same being strong evidence that it must come from the Railway Works.

“Difficulty was also experienced owing to the fact that acids, sulphides and other chemicals, in considerable quantities, were reaching the sewers from works in the district, causing the liberation of Sulphuretted Hydrogen at the disposal works in sufficient volume to cause nuisance, and at the same time discolouring the effluent to such an extent that complaint was received from the adjoining District Council.

“Steps have been taken to prevent the acid passing into the sewers, and this difficulty has been partially overcome, although we are still troubled with the oil and grease.

“During the heavy rains in the beginning of July a considerable length of the walls, enclosing the filter beds, fell down, rendering this section of beds, for the time being, useless.

“The walls have since been re-built and strengthened, and the beds are again in use.”

REFUSE DISPOSAL AND SCAVENGING.

A description of the methods of refuse disposal was given in last year's report, which it appears unnecessary to repeat.

Dr. Vaisey (Winslow R.D.) draws attention to the need of a proper system of Scavenging in the village of *Stewkley*, one of the least sanitary of the larger villages in the County:—

“In several of my reports I have stated that at **Stewkley** the ashbins are allowed to accumulate all the summer in festering heaps, so that when the autumnal rains set in the fluids sink into the soil and the

gases percolate through the floors of the houses, where the floors are of brick or stones laid in mud. The closets are bad—in many cases they are simply holes dug in the ground, without bricks or lining of any kind. There are still fowls, pigs, and cows kept in confined places close to the houses—these latter should be cleared away. The closets (and there should be one to every cottage) *must* have properly bricked and cemented pits; in some cases earth closets must be adopted at the advice of the Sanitary Inspector. A proper system of scavenging should be undertaken. The labouring man has not time to empty the closets and ash heaps regularly, and moreover he has nowhere to put the refuse, or any means to convey it away, and he is an irresponsible being whom one cannot get at. A proper scavenger who is paid to do his duty can be punished if he neglect it. The alternative to this is to have more water-closets, which would entail proper flushing and a complete system of drainage that would have to be approved by the Thames Conservancy Board, and we know what they are. It would entail enormous expense, whereas my suggestion—indeed, my urgent requisition—need not do so. The insanitary condition which exists is comparable to living over a powder magazine with trains in every direction—it only requires a spark in the shape of a carelessly-thrown match or an equally carelessly-thrown germ to start the whole in a blaze. It may be some time coming, and the people may be heedless as those living on the slopes of Vesuvius, but the outbreak is as surely certain to come.”

WATER SUPPLY.

This subject has been dealt with in reports for the past five years, and there is nothing fresh to call attention to during the year 1915.

POLLUTION OF RIVERS AND STREAMS.

The following are the only references to this subject in the Medical Officers' reports for the year.

Dr. Parrott (Aylesbury Urban District) writes:—

“The Bear Brook requires thoroughly cleaning out; when the water becomes low during the summer the mud is exposed, and bad smells result. The matter has been discussed on several occasions during the year, but the question as to who is responsible for the necessary cleansing has not yet been settled. An obstruction in the stream has recently been removed by the Surveyor near the bridge in Walton Street.

“The Sewage Works effluent discharges into the Haydon Mill Stream before its junction with the River Thame. Periodical examinations of the effluent show that it continues to conform with the required standard of purity.”

Dr. Digby White (Newport Pagnell Rural District) reports:—

“The extensive pollution of the Great Ouse at Olney has been further diminished by connection of 98 house drains to the new sewers; and pollution by trade refuse from the Olney Tannery has been mitigated by passage of the effluent through a series of precipitation tanks before discharge into the river. The accumulation at the old outfall was removed under the Surveyor's supervision, and the proprietors of the tannery paid half the cost. This outfall had been a long-standing nuisance, apart from the river pollution, and its removal effects a great improvement.

“The Bradwell brook, close to its junction with the Great Ouse, was found to be grossly polluted by the crude sewage discharged with the effluent from the Wolverton sewage farm, and also by the drainage of a farm house. The brook has been partially cleansed, and work is in hand to improve the effluent, and to prevent pollution by the farm drainage.

THE FOOD SUPPLY.

The question of the Food Supply has received careful attention at the hands of the Sanitary Inspectors in the Aylesbury, Chesham, Slough, and Wycombe Urban Districts, and in the Newport Pagnell Rural District.

This is a matter of such supreme importance to the comfort and well-being of the public that it is to be hoped that every medical officer of health will put thought and energy into the administration of the law dealing with the subject. In the case of rural districts it is a difficult problem to tackle, but even in the smaller urban districts where the problem is comparatively easy much yet remains to be done.

Dr. Adams (Slough) refers to a subject of great importance which since 1912 has received careful consideration by the Aylesbury Urban District Council, viz., the compensation to be paid to butchers after seizure of a tuberculous carcase:—

“It is to be regretted that there is no legislation whereby compensation could be paid to a butcher who, buying an animal in all good faith (and for which he pays a good price), finds during slaughter that the animal is suffering from tubercular or other disease, and liable to seizure.

“I feel confident that if compensation were forthcoming in such cases it would materially assist both butchers and meat-inspectors in the detection and elimination of diseased meat.

“With regard to the slaughter-house premises, one would be glad to be able to report that they were in keeping with the quality of meat killed therein, but I must confess that this is far from being the case. The only term applicable to the majority of these premises as regards their structural condition is “bad,” and the only remedy appears to me to be the total abolition of the private slaughter-houses and the provision of an up-to-date public abattoir.

“Of course one recognises that the present is not an opportune time for tackling this abattoir question, but it is to be hoped that when things become more normal the powers that then be will take up the matter in all seriousness.”

Mr. Chadwick, Sanitary Inspector, Wycombe, reports:—

“There are still six slaughter-houses situated in different parts of the town, and there will shortly be another. All are inspected, and several still call for abolition. The report under this heading is a source of disappointment. I had hoped to remark on the progress of the abattoir, but I am not able to comment on the progress of the idea.”

In the Borough of Wycombe and in the Wycombe Rural District the Sanitary Inspectors have taken samples of milk or other foods in addition to the samples regularly taken by the Police.

During the year the following articles of food were seized and condemned or surrendered voluntarily:—

DISTRICT.	ARTICLES OF FOOD.	QUANTITY AND REMARKS.
Aylesbury U.D.	Pig's head	15 lbs. Tuberculosis.
	Carcase of sheep	96 lbs. Pneumonia.
	Ox tongue	6 lbs. Actinomycosis
	Pig's pluck	13 lbs. Tuberculosis.
	Cow's liver	20 lbs. Distoma Hepaticum.
	Cow's head	30 lbs. Actinomycosis.
	Pig's pluck	6 lbs. Tuberculosis.
	Pig's head	11 lbs. Ditto.
	Ox head and tongue	32 lbs. Ditto.
	Pig's head	7 lbs. Ditto.
	Cow's liver	20 lbs. Cancer.
	Cow's lungs	14 lbs. Tuberculosis.
	Cow's lungs	13 lbs. Ditto .
	Heifer's lungs	14 lbs. Ditto.
	Carcase of cow	453 lbs. Ditto.
	Carcase of cow	866 lbs. Septicæmia.
	Ox liver	18 lbs. Echinococcus.
	Carcase of cow	650 lbs. Tuberculosis.
	Beef	40 lbs. Badly bruised.
	Beef, portions of	32½ lbs. Tuberculosis.
	Carcase of cow	555 lbs. Parturition and Tuberculosis.
	Sheep's liver and organs..	26 lbs. Distoma hepaticum.
	Pig's head	8 lbs. Tuberculosis.
	Carcase of cow	728 lbs. Ditto.
	Part of carcase of heifer .	60 lbs. Ditto.
	Pig's head	20 lbs. Ditto.
	Pig's head	13 lbs. Ditto.
		Total, 3,766½ lbs. All surrendered.
Chesham U.D.	Beef	1,760 lbs.
	Pork	160 lbs.
	Offal	240 lbs.
Slough U.D.		Total, 2,160 lbs. surrendered.
	Hind-quarter of pig	12 lbs. Peritonitis.
	Carcase and offal of pig...	63 lbs. Inflammation.
	Bullock's liver (portion)..	8 lbs. Abscess.
	Carcase and offal of pig...	114 lbs. Tuberculosis.
	Pig's liver	3 lbs. Abscess.
	Carcase and offal of pig...	120 lbs. Choked.
	Carcase and offal of pig...	110 lbs. Emaciation & dropsy.
	Carcase and offal of pig...	108 lbs. Suffocation.
	Portion of carcase of pig	66 lbs. Tuberculosis.
	Portion of ox liver	4 lbs. Cirrhosis.
	Box of fish	180 lbs. Decomposition.
	Case of frozen rabbits	75 lbs. Ditto.
	Box of tomatoes	10 lbs. Unsound.
		Total, 803 lbs. All surrendered.

DISTRICT.	ARTICLES OF FOOD.	QUANTITY AND REMARKS.
Wycombe U.D.	Cow's liver	Seized. Cavernous angioma.
	Sheep's liver and lungs...	" Strongylosis.
	Sheep's liver and lungs...	" Pyæmia.
	Carcass of sheep & organs	" Ditto.
	Carcass of pig & organs...	" Urticaria.
	Pig's pluck	" Cysticercus.
	Carcass of lamb	" Pyæmia.
	Lamb's liver	" Strongylosis.
	Pig's lungs	" Erysipelas.
	Pig's head	" Tuberculosis.
	Cow's lungs	" Ditto.
	Cow's liver	" Distoma hepaticum.
	Sheep's liver	" Ditto.
	Mesenteric fat	" Tuberculosis.
	Mesenteric fat	" Ditto.
	Cow's livers (three)	" Ditto.
	Bacon	" 64 lbs. Unwholesome.
	Cow's liver	" Cirrhosis.
	Sheep's lungs	" Strongylosis.
	Pig's head	" Tuberculosis.
	Pig's lungs	" Ditto.
	Carcass of lamb	" Jaundice.
	Cow's liver	" Tuberculosis.
	Cow's lungs	" Ditto.
	Beef	" 60 lbs. Ditto.
	Cow's liver	" Cavernous angioma.
	Jam	Surrendered. 60 lbs. Unwholesome.
	Haddock	" 2 boxes "
	Cod fish	" 20 lbs. "
	Witches	" 11 lbs. "
	Bloaters	" 1 box. "
	Haddocks	" 50 lbs. "
		Approximate weight of food seized and surrendered, 780 lbs.
Newport Pagnell R.D.	One ox carcass	
	One pig's carcass	
	One sheep's carcass	
	One ox liver	
	One pig liver	
Stratford and Wolverton R.D...	Beef	13 lbs. Unsound.
		All surrendered.
	Tomatoes	5 tins.
	Pineapple	3 tins.
	Apricots	6 tins.
	Salmon	11 tins.
	Sardines	1 tin.
	Anchovy	1 jar. All surrendered.

FOOD AND DRUGS ACTS.

The following table shows the articles submitted to the Public Analyst by the Police during the year. Seven samples, out of 150, were reported to show *primâ facie* evidence of adulteration :—

Articles submitted for Analysis.	Total No.	No. Adulterated.	Nature and Extent of Adulteration.	Observations.
Milk	54	3	Contained 2 % extra-neous water	Vendor cautioned. " "
			Deficient in fat 22 %	
			Deficient in fat 14 %	
Bread	6	...		
Butter	22	1	Contained 8 % added water	Summons dismissed.
Lard	6	...		
Sugar	12	...		
Pork Pie	6	...		
Ice Cream	6	...		
Tinned Salmon	6	...		
Sugar of Milk	2	...		
Beer	12	...		
Brandy	6	3	31° under proof	Vendor fined 20s. Vendor fined 9s. 6d. and 10s. 6d. costs. Vendor cautioned.
			42° " "	
			29° " "	
Mineral Waters	6	...		
Linseed Oil	6	...		
Totals	150	7		

The following samples were submitted to the Public Analyst by the Sanitary Inspector for High Wycombe (Mr. L. Chadwick) :—

Articles submitted for Analysis.	Total number.	Results of Analyses.		
		Genuine.	Inferior.	Adulterated.
Milk	31	16	12	3
Butter	8	8	...	...
Margarine	4	2	1	1
Bread	6	6	...	...
Ice Cream	1	1	...	...
Sago	1	...	...	1
French Nougat	1	1	...	...
Scotch Whisky	1	1	...	...
Black Brandy mint	1	...	...	1
	54	35	13	6

Police Court proceedings taken in connection with the above resulted as follows:—

Adulterated milk, one case—Fined £1:1 and costs, 10/6.

Excess of butter-fat in margarine, one case—Summons dismissed.

Margarine not marked when sold by retail, one case—Summons dismissed.

In the Wycombe Rural District four samples of milk were taken for analysis by the Sanitary Inspector (Mr. E. J. J. Chapman).

All were reported to be genuine.

SANITARY INSPECTION.

The accompanying table shows at a glance the activities of the Sanitary Inspectors throughout the County. The table is by no means a complete record of the work done, but it gives a clear idea of the amount of work undertaken during the year.

The following are the names of the Sanitary Inspectors in the County for the year 1915:—

URBAN DISTRICTS:—

Aylesbury	Mr. A. Lee
Beaconsfield	*Mr. H. Sargeant
Bletchley	*Mr. J. Chadwick
Buckingham	Mr. H. J. Chapman (resigned). Succeeded by Mr. J. E. Hattersley
Chesham	Mr. H. Stacey
Eton	Mr. G. Smith
Linslade	Mr. M. G. Gurney
Marlow	*Mr. T. N. W. Watts
Newport Pagnell	Mr. C. A. Branford
Slough	Mr. J. H. Glover
High Wycombe	Mr. L. Chadwick

RURAL DISTRICTS:—

Amersham	Mr. A. B. Crowhurst
Aylesbury	Mr. R. T. Stewart
Buckingham	Mr. E. E. Oates
Eton	Mr. R. Hallam
	Mr. R. A. Wilson
Hambleden	Mr. Alan Deane
Long Crendon	Mr. A. J. Webb
Newport Pagnell	Mr. J. C. Nicholls
	Mr. W. J. Budds
Stratford and Wolverton	Mr. A. E. Abbott
Wing	Mr. M. G. Gurney
Winslow	Mr. H. Cripps
Wycombe	Mr. R. H. Herring
	Mr. E. J. J. Chapman

* On active service.

SANITARY INSPECTION:—WORK DONE UNDER THE PUBLIC HEALTH ACTS. (For work done under the Housing Acts, see Tables on pages 40-41).

DISTRICT.	(1) GENERAL INSPECTION AND NUISANCES.								(2) DRAINS, W.C.'s, PRIVIES, &c.						(3) WATER SUPPLY.						(4) FOOD SUPPLY.																(5) FACTORIES AND WORKSHOPS.						(6) INFECTIOUS DISEASES.																																																																																																																																																																																																																																																																																																																																																																			
	Number of Inspections.	Complaints received.	Nuisances detected without complaint.	Nuisances abated		House Nuisances.			New Work.			Old Work.			Houses supplied with water.	Samples analysed.		Wells.			Cisterns.		Food surrendered. No. of cases.	Carcasses inspected.	Slaughter Houses.				Bake Houses.				Dairies, Cowsheds and Milkshops.				On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	On Register.	Inspections.	Defects found.	Defects remedied.	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MIDWIVES ACT, 1902.

Miss Mackenzie, Inspector of Midwives, has submitted the following report to the Midwives Sub-Committee:—

I have the honour to present my Annual Report for the year ended 31st December, 1915.

Number of Midwives registered..	111	Notices of sending for Medical	
Number actually practising	89	help	171
Number of cases attended by		Notices of Still-births received ...	27
Midwives	1,590	Cases of Puerperal Fever notified	3
Inspections made	295	Cases of Ophthalmia notified	7
Special Inspections	17	Deaths of mother	5
Midwives reported to the C.M.B.	—	Deaths of child	8
Suspended from practice	3	Inquest	1
Removal from Roll	1		

Of the 111 midwives who notified their intention to practise during the year, 68 are trained and 21 are *bona-fide*.

The midwives attended 1,259 cases alone and 331 as monthly nurses. Medical help was summoned in 171 cases.

There were 27 still-births during the year, compared with 24 in the previous year.

Three cases of Puerperal fever were reported, as against five in the year 1914. Fortunately all the patients recovered.

Five deaths of mothers were reported. In no case did there appear to be any neglect on the part of the midwife.

Eight deaths of infants were reported. In each case it was found that the midwife had carefully carried out the Rules of the C.M.B. One inquest was held, and a verdict of "Death from natural causes" was returned. On investigation of these cases one feels that the proportion (.5 per cent.), especially when added to the percentage of still-births (1.7), is too high, and one wonders what steps can be taken.

Three midwives were suspended from practice after having been in contact with cases of puerperal fever.

The name of one midwife was removed from the Roll at her own request, on the grounds of old age and inability to keep the Rules.

There is an earnest desire among all the midwives to do good work, but a much higher standard is obtained from the woman who has had general training in nursing.

There is still a great deficiency of midwives in the County partly due to the shortage of suitable women for training, and partly due to the fact that it is impossible for a woman to earn a sufficiency of fees in our scattered villages.

In July the Notification of Births Act was adopted by the County Council, and a scheme was formulated for the provision of Health Visitors. The Nursing Associations who had suitable nurses were requested to co-operate, and with one exception allowed their nurses to undertake the work. It is gratifying to report that the work has progressed harmoniously; the majority of the nurses make keen Health Visitors.

During the year two assistant inspectors of midwives were appointed, one whole time, and the other half time. Up to the present they have been doing health visiting chiefly.

My best thanks are due to all who have co-operated and helped to carry out the provisions of the Midwives Act.

ELIZABETH MACKENZIE,

Inspector of Midwives.

MATERNITY AND CHILD WELFARE.

The following report in respect of Maternity and Child welfare, which has been written by Dr. Scruby, is evidence of the good work carried out under this heading during the year:—

The Council's Scheme for Maternity and Child Welfare, which included the adoption of the Notification of Births Act, received the approval of the Local Government Board early in the year, and should have come into operation on May 1st, but owing to a technical legal difficulty and also to the printers' difficulties in supplying the necessary forms, it was

not actually in operation until the beginning of August. A circular letter explaining the requirements of the Act was sent in July to all doctors and midwives practising in the County.

The Borough of Chepping Wycombe, which had adopted the Notification of Births Act in 1910, decided to remain outside the Council's Scheme.

The main features of the Scheme, besides the adoption of the Act, are that the County Superintendent of Midwives, who is also the County Superintendent of Nurses, should under the general direction of the County Medical Officer act as County Health Visitor, and should supervise the work of those Nurses who act as Health Visitors in their respective areas.

A whole-time assistant to the County Superintendent has been appointed. She undertakes the Health Visiting in a large area where there are no approved District Nurses, and also assists in the general supervision of the Midwives.

District Nurses employed by local Nursing Associations and possessing the C.M.B. certificate, and who have also had not less than a year's general training, have undertaken the Health Visiting in their respective areas under the general supervision of the County Medical Officer of Health and the Inspector of Midwives. At the present time 38 local Nursing Associations are working in co-operation with the Council's Scheme, and at the end of the year 640 mothers and infants were being regularly visited by the local District Nurses.

The adoption of the Act and the initiation of the Health Visiting has thrown a large amount of new work and much clerical labour on the County Health Visitor's Office. Between August 1st and December 31st 1,422 births were notified, and of these 972 babies were under observation at the end of the year, and 2,022 visits had been paid by the Health Visitors.

Lists of births which have been notified are sent every six weeks to the Superintendent Registrars in the various Unions in the County, and in return the County Health Visitor receives lists of births registered but not notified. In this way it is possible to obtain information of almost every birth which takes place in the Administrative County, and it is gratifying to be able to report that the requirements of the Notification of Births Act are complied with in the great majority of cases. This is due to the co-operation of Doctors and Midwives throughout the County.

The Nurses have been very well received as Health Visitors, and their employment in this connection seems at the present time to be the best means of inducing the expectant mothers to seek for further advice when necessary. It has been suggested that local Nursing Associations might charge a rather lower fee to mothers who engage the services of the Nurses six or seven months in advance instead of only a month or two previous to their confinement.

Any abnormal case requiring special hospital treatment can be sent to the Maternity Department of one of the London Hospitals, and will be admitted as an in-patient if necessary.

Three "Babies' Welcomes," or "Schools for Mothers," were already in existence, and were doing excellent work in the County, and these have all now affiliated with the County Scheme. They are:—

	BABIES' WELCOME.	SCHOOLS FOR MOTHERS.	
	LANE END.	WRAYSBURY.	DATCHET.
Hon. Secretary	The Hon. Mrs. Bernard James	Mrs. Hampton	Mrs. Harvey
Hon. Medical Officer	Dr. Wilson	Dr. Tothill Dr. Walker	Dr. Clegg Dr. Walker

Four new "Babies' Welcomes" have been started, and are all affiliated. These are:—

	<i>Hon. Secretary.</i>	<i>Hon. Medical Officer.</i>
Eton	Miss Stanford	Dr. Amsler.
Stony Stratford	Mrs. Last	Dr. D. W. A. Bull.
Eton Wick	Mrs. Booker	
Burnham	Mrs. Carter	Dr. Wilmot.

Local Associations are free to make their own arrangements with regard to the organisation of any proposed Centre, subject to the expenditure being of a nature approved by the Local Government Board and the County Council. The cost of equipment and annual approved expenditure will then be paid by the County Council, who will later receive the grant from the Local Government Board. The local Associations are asked to collect by voluntary contributions half the cost. Owing to the pressure of work of all kinds at the present time, it will probably be difficult for local Associations to organise many other new centres during the War, but the experiences—both successes and difficulties—of these seven pioneer Centres in the County will form a valuable basis, and will be of considerable help in extending future work of this nature in rural areas.

The County Scheme does not apply to the Borough of Chepping Wycombe. Dr. Bannerman, in his report to the Borough Council, writes:—

"The unobtrusive yet extremely beneficial work carried out by the Health Society is worthy of note, and much of the success is due to the sympathetic, active, and business-like Secretary, Mrs. A. J. Clarke. During the year 216 births were notified to the Society by me, and the total number of visits paid by the District Nurses as Health Visitors for the Society was 2,579. The total number of consultations when the babies are brought was 396. At these visits the babies are weighed, advice is given on the proper feeding of infants, suitable clothing, how to avoid minor ailments, and such-like subjects, and the advice has always been listened to, if not always carried out.

"At the room of the Society short lectures or chats are given to the mothers on war-time cookery, hygiene, nursing, feeding, and management of babies, which appear to be much appreciated.

"In order that the Society should continue its useful work in the interests of the children, the Town Council have assumed the financial responsibility of the Society, which was a step in the right direction, and I trust the voluntary helpers will not feel discouraged at not always seeing better results from their work, but continue the labours they have so admirably performed for six or seven years.

"To effect the greatest good to the greatest number in measures dealing with Child and Maternal Welfare, it requires the sympathy and support of everyone."

Dr. E. Weaver Adams (Slough), on the subject of Infantile Mortality, writes:—

"It is to be hoped that the present year will show a return to more normal figures, and some considerable strides will probably be made in a direction upon which only a few initial steps have been taken. For the last few months of the year all births became notifiable to the County Authority within 36 hours of their occurrence, and the County Council propose to follow up the children and exercise an advisory supervision upon their welfare and progress. If this is combined with advice to expectant mothers, and followed by careful assistance with measles, and whooping cough, and tuberculosis, we may reasonably hope to reduce the national infant mortality to about half its present figure, or perhaps even lower.

"As I have mentioned in a former annual report, I think there is scope in this field for patriotic effort by such ladies as those who now are occupied with Red Cross and V.A.D. Hospital work, and whose services in that direction will not be needed after the War. If they could be organised and instructed, the County Council would be exceedingly glad of their co-operation."

CHIEF STATISTICS OF URBAN AND RURAL DISTRICTS, 1913-1915,

COMPARED WITH THE AVERAGE FOR TEN YEARS (1905-1914).

DISTRICT.	POPULATION.			Acreage uncovered by Water.	Inhabited Houses, 1911.	Population per House, 1911.	BIRTH RATE.				CORRECTED DEATH RATE.				INFANT MORTALITY.				DEATH-RATE FROM PHTHISIS.			DEATH-RATE FROM CANCER.			DISTRICT.
	By Estimate, 1915.	By Census, 1901.	By Census, 1911.				1913	1914	1915	Average for Ten Years, 1905-1914	1913	1914	1915	Average for Ten Years, 1905-1914	1913	1914	1915	Average for Ten Years, 1905-1914	1914	1915	Average for Ten Years, 1905-1914	1913	1914	1915	
URBAN—SUMMARY.	77,271	69,157	79,967	27,158	18,600	4.3	20.5	20.9	18.7	21.7	10.0	10.8	15.0	11.2	78	65	...	83	.8	.7	.7	1.0	1.1	0.9	URBAN—SUMMARY.
1. Aylesbury	10,786	9,243	11,048	3,301	2,740	4.0	21.5	18.9	17.6	20.1	11.4	11.0	15.6	12.9	73	84	86	91	1.0	1.6	.9	1.3	.8	.5	1. Aylesbury
2. Beaconsfield	3,191	1,570	2,511	4,395	633	3.9	23.3	24.7	15.9	25.2	10.4	8.3	7.5	10.6	54	14	...	69	.7	...	.4	.4	2.0	.6	2. Beaconsfield
3. Bletchley	4,941	4,799	5,166	3,714	1,239	4.2	19.6	24.3	20.6	20.8	8.3	11.5	15.4	9.2	35	90	73	55	1.1	.6	.6	1.1	.6	.6	3. Bletchley
4. Buckingham	3,038	3,152	3,282	4,773	792	4.1	18.1	18.4	18.3	22.0	9.2	12.9	18.1	11.3	67	49	131	60	.3	1.3	.7	.6	1.2	1.0	4. Buckingham
5. Chesham	7,964	7,245	8,204	1,386	1,901	4.3	19.0	20.0	19.3	21.9	10.6	9.4	14.7	11.6	56	58	55	86	1.0	1.1	1.1	.7	1.3	1.5	5. Chesham
6. Eton	2,125	3,301	3,192	254	519	6.1	10.7	8.2	8.8	9.7	13.0	15.7	15.5	10.1	117	77	71	65	...	.5	.6	.9	1.6	1.0	6. Eton
7. Linslade	2,204	2,157	2,262	1,693	560	4.0	20.1	16.6	19.0	20.0	10.3	11.7	14.0	12.4	109	79	47	99	.9	...	.5	1.3	1.3	1.0	7. Linslade
8. Marlow	4,617	4,526	4,683	940	1,124	4.1	22.2	24.7	20.8	24.0	11.1	10.1	14.3	13.7	124	51	121	113	.6	.6	.9	.6	.8	1.0	8. Marlow
9. Newport Pagnell	4,054	4,028	4,239	3,432	1,052	4.0	16.5	17.8	16.2	21.0	10.0	11.1	19.2	10.6	85	52	114	64	.7	1.0	.7	1.0	2.1	1.2	9. Newport Pagnell
10. Slough	14,418	11,452	14,985	1,536	3,490	4.2	22.2	19.7	19.2	23.3	10.7	9.5	15.2	10.5	76	53	121	77	1.0	.7	.7	1.2	1.0	.8	10. Slough
11. Wycombe	19,933	17,683	20,387	1,734	4,550	4.5	21.9	24.3	19.7	24.8	10.2	11.3	14.4	11.5	87	75	123	96	.8	1.1	.8	.8	1.2	1.0	11. Wycombe
RURAL—SUMMARY.	137,456	127,889	139,596	448,924	33,217	4.2	19.3	18.9	18.0	20.9	9.5	9.5	14.0	9.7	66	54	80	73	.6	.6	.6	1.0	1.2	1.1	RURAL—SUMMARY.
1. Amersham	17,854	13,800	18,514	45,883	4,192	4.0	17.3	19.0	20.0	23.1	9.0	8.4	14.9	11.8	64	36	81	61	.5	.6	.6	.8	1.4	1.4	1. Amersham
2. Aylesbury	14,588	15,622	16,023	72,123	3,872	4.1	17.3	15.9	18.1	20.7	9.0	9.9	14.4	15.0	64	78	65	81	.4	.9	.7	1.4	1.2	1.2	2. Aylesbury
3. Buckingham	7,804	8,124	8,322	54,696	2,084	3.9	17.5	18.1	16.4	21.8	9.4	8.4	14.1	12.3	82	20	65	70	.4	.3	.5	.9	1.1	.5	3. Buckingham
4. Eton	24,812	20,038	23,435	41,005	5,224	4.5	21.1	20.1	19.1	22.0	9.5	11.4	14.4	10.9	66	64	102	77	.6	.9	.7	1.0	1.0	1.2	4. Eton
5. Hambleden	1,870	2,139	1,975	11,253	480	4.1	17.0	26.0	19.1	20.1	9.2	8.2	9.6	11.2	30	60	111	71	1.0	1.6	.9	3.0	1.0	1.1	5. Hambleden
6. Long Crendon	3,884	4,388	4,235	21,176	1,043	4.0	16.6	18.8	14.6	19.5	7.8	10.1	16.7	13.0	57	38	115	70	1.2	.8	.9	.9	1.2	1.3	6. Long Crendon
7. Newport Pagnell	18,371	19,173	19,024	66,846	4,656	4.1	20.3	20.3	16.2	20.7	8.8	11.1	13.0	11.2	65	57	61	75	.5	.6	.7	1.0	1.1	1.2	7. Newport Pagnell
8. Stratford and Wolverton	10,635	8,387	10,427	4,459	2,518	4.1	17.1	15.9	16.9	20.8	9.1	10.2	11.9	10.3	32	67	105	67	.4	.6	.8	.9	1.1	.9	8. Stratford and Wolverton
9. Wing	5,802	6,274	6,089	27,769	1,500	4.0	17.5	16.9	13.9	19.3	9.9	9.3	17.2	11.4	94	29	60	71	.1	1.0	.5	.7	1.5	.9	9. Wing
10. Winslow	6,626	7,034	6,995	33,850	1,766	3.9	14.0	14.9	14.9	17.8	9.3	11.1	16.1	13.3	153	19	164	76	1.1	...	.8	.7	.9	1.2	10. Winslow
11. Wycombe	25,210	22,910	24,557	69,854	5,882	4.1	20.6	21.4	19.7	22.6	10.9	11.9	13.0	11.7	58	83	54	74	.9	.4	.8	1.0	1.2	1.7	11. Wycombe

Adoptive Acts, Bye Laws, and Regulations.

[illegible]

